IN THE CLAIMS

1. (currently amended) A processor power supply voltage controller comprising:

a temperature sensor configured to sense a temperature of a processor and generate a temperature signal in accordance therewith; and

a regulator coupled to provide a power supply voltage to the processor, the regulator coupled to receive the temperature signal and control the power supply voltage, wherein the regulator controls the power supply voltage to maintain a substantially stable crosstalk level within the processor.

a2

2. (original) The controller of claim 1 wherein the temperature sensor further comprises a negative temperature coefficient resistor.

3. (original) The controller of claim 2 further comprising:

a feedback circuit coupled to the negative temperature coefficient resistor, the feedback circuit configured to generate the temperature signal for the regulator.

4. (original) The controller of claim 1 wherein the temperature sensor further comprises a thermal diode circuit.

5. (original) The controller of claim 1 wherein the temperature sensor is configured to sense the temperature of the processor by sensing a temperature of a heat sink coupled to the processor.

6. (currently amended) The controller of claim 1 wherein the temperature sensor is configured to sense the temperature of the processor by sensing a temperature of an enclosure including the processor.

a2 cont'

7. (original) The controller of claim 1 wherein the temperature sensor is configured to sense the temperature of the processor by sensing a die temperature of the processor.

8. (withdrawn)

9. (original) A system for maintaining a crosstalk level within an electronic device over a variable temperature range, said system comprising:

a voltage supply circuit for supplying an output voltage to said electronic device; and

a temperature sensitive element coupled to said voltage supply circuit and for maintaining a substantially constant crosstalk level within said electronic device by regulating said output voltage of said voltage

supply circuit, wherein said voltage supply circuit increases said output voltage in response to a temperature increase and wherein said voltage supply circuit decreases said output voltage in response to a temperature decrease.

10. (original) A system as described in Claim 9 wherein said electronic device is a semiconductor device.

11. (original) A system as described in Claim 10 wherein said semiconductor device is a central processing unit.

12. (original) A system as described in Claim 10 wherein said semiconductor device is a graphics processing unit.

13. (original) A system as described in Claim 9 wherein said temperature sensitive element is a negative thermal coefficient (NTC) resistor coupled in feedback to said voltage supply circuit.

14. (original) A system as described in Claim 9 wherein said temperature sensitive element is a thermistor.

15. (original) A system as described in Claim 9 wherein said voltage supply circuit is a switch mode power supply circuit.

16. (original) A system as described in Claim 9 wherein said temperature sensitive element, said voltage supply circuit and said electronic device are all mounted on a common electronic PC board.

17. (original) An electronic system comprising:

a semiconductor device operated over a variable temperature range;

a voltage supply circuit supplying an output voltage to said semiconductor device for supplying power thereto; and

a temperature sensitive element coupled to said voltage supply circuit and for maintaining a substantially constant crosstalk level within said semiconductor device over said variable temperature range by regulating said output voltage of said voltage supply circuit.

18. (original) A system as described in Claim 17 wherein said voltage supply circuit, in response to said temperature sensitive element, increases said output voltage when said temperature increases and wherein said voltage supply circuit, in response to said temperature sensitive element, decreases said output voltage when said temperature decreases.

19. (original) A system as described in Claim 18 wherein said semiconductor device is a central processing unit.

20. (original) A system as described in Claim 18 wherein said semiconductor device is a graphics processing unit.

Q7 cont.

21. (original) A system as described in Claim 20 wherein said temperature sensitive element is a negative thermal coefficient (NTC) resistor coupled in feedback to said voltage supply circuit.

22. (original) A system as described in Claim 20 wherein said temperature sensitive element is a thermistor.

23. (original) A system as described in Claim 20 wherein said voltage supply circuit is a switch mode power supply circuit.

24. (original) A system as described in Claim 20 wherein said temperature sensitive element, said voltage supply circuit and said semiconductor device are all mounted on a common electronic PC board.

25. (original) A method of regulating an amount of crosstalk of an electronic device comprising:

operating said electronic device over a variable temperature range;

detecting an ambient temperature adjacent to said electronic device;

in response to said detecting, increasing a voltage supplied to said electronic device if said ambient temperature increases; and

in response to said detecting, decreasing said voltage supplied to said electronic device if said ambient temperature decreases, wherein said increasing and said decreasing are performed to regulate said crosstalk of said electronic device.

Cont.

26. (original) A method as described in Claim 25 wherein said detecting is performed by a temperature sensitive element disposed near said electronic device.

27. (original) A method as described in Claim 26 wherein said temperature sensitive element is a negative thermal coefficient (NTC) resistor.

28. (original) A method as described in Claim 27 wherein said temperature sensitive element is a negative thermal coefficient (NTC) resistor coupled in parallel to a voltage supply circuit that supplies voltage to said electronic device.

29. (original) A method as described in Claim 28 wherein said voltage supply circuit is a switch mode power supply.

30. (original) A method as described in Claim 29 wherein said electronic device is a semiconductor device.

A2 cont

31. (original) A method as described in Claim 30 wherein said semiconductor device is a central processing unit.

32. (original) A method as described in Claim 30 wherein said semiconductor device is a graphics processing unit.

33. (original) A processor power supply voltage controller comprising:

a temperature sensor configured to sense a temperature of a processor and generate a temperature signal in accordance therewith; and

a regulator coupled to provide a power supply voltage to the processor, the regulator coupled to receive the temperature signal and supply to the processor an initial voltage when the power supply voltage turns on and a voltage higher than the initial voltage as the sensed temperature rises.

34. (original) The controller of Claim 33 wherein the regulator is coupled to provide the power supply voltage to a plurality of power supply voltage inputs of the processor.

35. (original) An electronic system comprising:

a semiconductor device operated over a variable temperature range;

a voltage supply circuit supplying an output voltage to said semiconductor device for supplying power thereto; and

a temperature sensitive element coupled to said voltage supply circuit and for regulating said output voltage of said voltage supply circuit, said temperature sensitive element configured for detecting an ambient temperature adjacent to said semiconductor device and in response to said detecting, increase said output voltage if said ambient temperature increases and decrease said output voltage supplied to said semiconductor device if said ambient temperature decreases, wherein said increasing and said decreasing are performed to regulate crosstalk of said electronic device.

36. (original) A system for maintaining a crosstalk level within an electronic device over a variable temperature range, said system comprising:

a voltage supply circuit for supplying an output voltage to said electronic device;

a feedback circuit coupled to said voltage supply circuit; and

a temperature sensitive element coupled to said voltage supply circuit and said feedback circuit for detecting a temperature of said electronic device and for maintaining a substantially constant crosstalk level within said electronic device by regulating said output voltage of said voltage supply circuit, said voltage supply circuit configured to increase said output voltage in response to said feedback circuit signaling a temperature increase and decrease said output voltage in response to said feedback circuit signaling a temperature decrease.

A7 cont.